

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) [[A]] An isolated DNA comprising a nucleotide sequence encoding the following polypeptide (a) or (b):

(a) a polypeptide, consisting of an amino acid sequence identical to or substantially identical to the amino acid sequence represented by SEQ ID NO: 2; or

(b) a polypeptide, consisting of an amino acid sequence derived from the amino acid sequence represented by SEQ ID NO: 2 by deletion, substitution, or addition of within one to twenty or a plurality of amino acids and having biological activity substantially equivalent to the functions of the polypeptide (a) N-acetylglucosamine transferase activity.

2. (Currently Amended) [[A]] An isolated DNA (c) or (d) as follows:

(c) a DNA, comprising the nucleotide sequence represented by SEQ ID NO: 1 and containing the nucleotide sequence that encodes the amino acid sequence represented by SEQ ID NO: 2; or

(d) a DNA, hybridizing under stringent conditions condition of 0.1 XSSC, 0.1% SDS and 37 °C to a DNA consisting of a nucleotide sequence complementary to that of the DNA (c) and encoding a protein having biological activity substantially equivalent to the functions of the polypeptide consisting of the amino acid sequence represented by SEQ ID NO: 2 N-acetylglucosamine transferase activity.

3. (Cancelled)

4. (Currently Amended) An expression vector, comprising the DNA of claim 1 or claim 2.

5. (Original) A transformant, comprising the vector of claim 4.

6. (Withdrawn) A protein, comprising the following polypeptide (a) or (b):

(a) a polypeptide, consisting of an amino acid sequence identical to or substantially identical to the amino acid sequence represented by SEQ ID NO: 2; or

(b) a polypeptide, consisting of an amino acid sequence derived from the amino acid sequence represented by SEQ ID NO: 2 by deletion, substitution, or addition of one or a plurality of amino acids and having biological activity substantially equivalent to the functions of the polypeptide (a).

7. (Withdrawn) A recombinant protein, which is obtained by causing the expression of a gene comprising the DNA of claim 1.

8. (Withdrawn) An antibody, binding to the protein of claim 6.

9. (Withdrawn) The antibody of claim 8, which is a monoclonal antibody.

10. (Withdrawn) An antibody, binding to a peptide of SEQ ID NO: 3 or 4.

11. (Withdrawn) An anti-carcinoma agent, comprising the antibody of claim 8.
12. (Withdrawn) The anti-carcinoma agent of claim 11, wherein carcinoma is lung carcinoma.
13. (Withdrawn) The anti-carcinoma agent of claim 11, wherein carcinoma is breast carcinoma.
14. (Withdrawn) The anti-carcinoma agent of claim 11, wherein carcinoma is prostatic adenocarcinoma.
15. (Withdrawn) The anti-carcinoma agent of claim 11, wherein carcinoma is pancreatic carcinoma.
16. (Withdrawn) A method for screening for a substance binding to the protein of claim 6 or a partial peptide thereof, comprising the steps of:
 - (a) bringing a test sample into contact with the protein or a partial peptide thereof;
 - (b) detecting binding activity of the protein or the partial peptide thereof with the test sample; and
 - (c) selecting a compound having activity to bind to the protein or the partial peptide thereof.

17. (Withdrawn) The screening method of claim 16, wherein the partial peptide is a peptide consisting of the amino acid sequence represented by SEQ ID NO: 3 or 4.

18. (Currently Amended) [[A]] An isolated polynucleotide, hybridizing under stringent conditions of 0.1 XSSC, 0.1% SDS and 37 °C to the DNA of claim 1 and consisting of at least 15 nucleotides.

19. (Original) The polynucleotide of claim 18, encoding the amino acid sequence represented by SEQ ID NO: 3 or 4.

20. (Withdrawn) A method for detecting carcinoma using the polynucleotide of claim 18 as a probe, comprising the steps of:

- (a) bringing a test sample into contact with the polynucleotide; and
- (b) detecting activity of hybridization between the polynucleotide and the test sample.

21. (New) A method for producing a protein comprising culturing the transformant according to claim 5 and inducing expression of the DNA to produce polypeptide (a) or (b) or a polypeptide encoded by (c) or (d).